

WHAT IS CLAIMED IS:

1. An exposure apparatus comprising:

an irradiation optical system for irradiating a pattern formed on an original plate with light emitted from a light source;

a projection optical system for projecting a light image from said pattern onto a substrate;

a drivable substrate stage for mounting said substrate; and

a light absorber disposed on said substrate stage;

wherein said light absorber is disposed on said substrate stage by a thermal insulating layer and/or a cooling unit.

2. An exposure apparatus according to Claim 1, wherein said light absorber has a configuration so as to exhibit the reflectivity of 1% or less for the light emitted from said light source.

3. An exposure apparatus according to Claim 1, further comprising a heat-releasing member for releasing heat accumulated within said light absorber.

4. An exposure apparatus according to Claim 1, wherein

said thermal insulating layer is disposed on the side of said substrate stage between said substrate stage and said light absorber, and said cooling unit is disposed on the side of said light absorber therebetween.

5. An exposure apparatus according to Claim 4, further comprising a heat-releasing member disposed between said light absorber and said cooling unit for releasing heat accumulated within said light absorber.

6. An exposure apparatus according to Claim 1, further comprising a secondary light source, in addition to said light source, for performing photo-cleaning for at least a part of said irradiation optical system or said projection optical system.

7. An exposure apparatus according to Claim 6, wherein said light absorber has a configuration so as to exhibit the reflectivity of 1% or less for the light emitted from said secondary light source.

8. An exposure apparatus comprising:

an irradiation optical system for irradiating a pattern formed on an original plate with light emitted from a light source;

a projection optical system for projecting a light image from said pattern onto a substrate; and
a drivable substrate stage for mounting said substrate;
wherein said substrate stage includes a window where the light from said light source can pass through.

9. An exposure apparatus according to Claim 8, wherein said window is formed on said substrate stage in the shape of a through hole.

10. An exposure apparatus according to Claim 8, wherein said window is formed on the perimeter of said substrate stage in the shape of a notch.

11. An exposure apparatus according to Claim 8, further comprising a shaping optical system for shaping the light emitted from said light source so as to pass through said window.

12. An exposure apparatus according to Claim 8, further comprising a light receiving plate for receiving the light which has passed through said window.

13. An exposure apparatus according to Claim 12, further comprising a heat-releasing member for releasing

heat accumulated within said light receiving plate.

14. An exposure apparatus according to Claim 12, further comprising a cooling unit for cooling said light receiving plate.

15. An exposure apparatus according to Claim 12, wherein said light receiving plate is thermally insulated from said substrate stage.

16. An exposure apparatus according to Claim 8, further comprising a secondary light source, in addition to said light source, for performing photo-cleaning for at least a part of said irradiation optical system or said projection optical system.

17. An exposure apparatus according to Claim 16, further comprising a light receiving plate for receiving the light which has passed through said window,

wherein said light receiving plate has a configuration so as to exhibit the reflectivity of 1% or less for the light emitted from said secondary light source.

18. An exposure method comprising:

a step for irradiating a pattern formed on an original

plate with the light emitted from a light source;

a step for projecting a light image from said pattern onto a substrate through a projection optical system; and

a step for casting the light emitted from said light source onto a light absorber disposed on a drivable substrate stage for mounting said substrate.

19. A method according to Claim 35, further comprising a step for releasing heat accumulated within said light absorber, wherein the heat is released from a heat-releasing member.

20. An exposure method comprising:

a step for irradiating a pattern formed on an original plate with the light emitted from a light source;

a step for projecting a light image from said pattern onto a substrate through a projection optical system; and

a step for introducing the light emitted from said light source through a window formed on a drivable substrate stage for mounting said substrate, such that said light passes therethrough.